FGDC National Boundaries Group
Federal Lands Working Group
Face-to-Face Meeting

March 20, 2018

Walter E. Washington Convention Center
Washington, D.C.

What we'll cover . . .

- Welcome and intros
- What's done and next?
- "Common agency needs"
- Making a base map
- Secrets to success
- Group Dinner

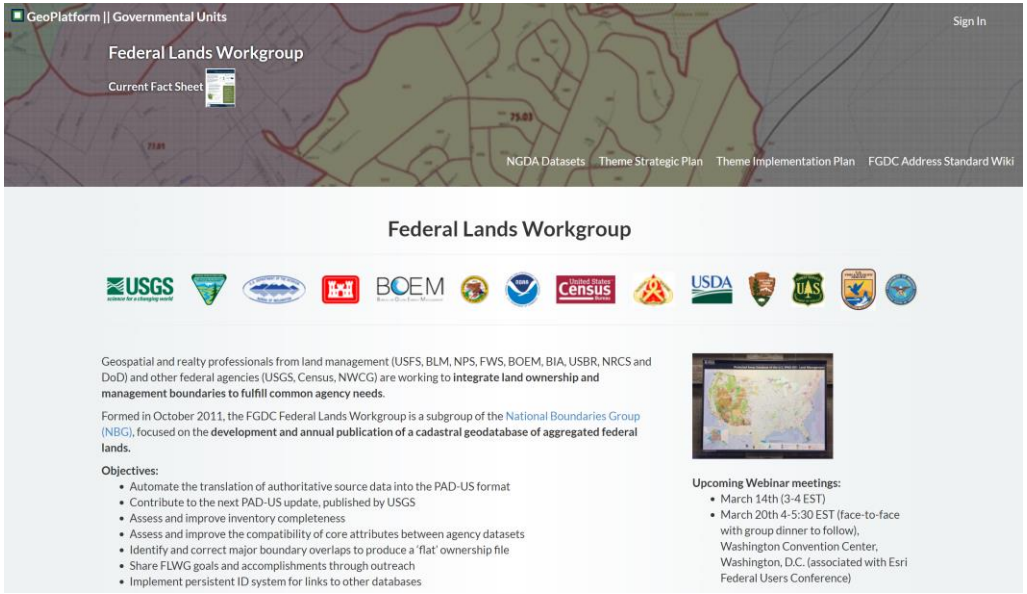
Introductions

Nice to meet you…

Announcements

New FLWG Website

- Fact sheet
- Meeting dates
- Call notes
- Presentations
- PAD-US Action Plan



(communities.geoplatform.gov/ngda-govunits/federal-lands-workgroup/)

PAD-US 2.0 **Publication** Status

- Expected **May** 2018
- New database structure – manage **overlaps**
- More **documentation**
- **Federal** updates (8)
- **State** updates (12)
- State and local **sliver** errors removed
- New NCED **easements**
- Integrated **nonprofit** databases – TPL, DU, TNC

USGS

Coming soon…

State Support for America's Inventory of Public Parks and Protected Areas

FGDC State Lands Working Group

The **Protected Areas Database of the United States** (PAD-US) is America's inventory of public parks and protected areas. Published by the United States Geological Survey (USGS), PAD-US is a GIS database of over 150,000 sites, totaling 3 billion acres of land and marine protected areas, and includes lands owned outright by agencies and NGOs, and lands with conservation easements.

State Data Stewards, who make up the FGDC State Lands Working Group, are essential partners in building PAD-US, providing data on state, regional and local protected areas for inclusion into each PAD-US release.

While not every state has a **public agency, nonprofit or university** data steward that is able to assemble this data, many do and it is a **top goal** of the FGDC National Boundaries Group, led by USGS and the U.S. Census Bureau in coordination with state partners, to seek support for these efforts.

Learn more about State Data Stewards, including contacts, at: www.Protectedlands.net/partners

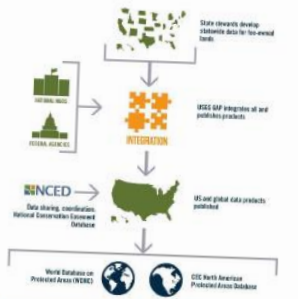
The Protected Areas Database of the U.S. – v. 1.4 May 2016

Current Priorities:

- Increase awareness and build support for the state data steward network
- Improve and adopt PAD-US standards for core data attributes
- Increase the efficiency of state and local government updates
- Expand inventory completeness, especially local parks
- Review conservation and recreation measures in PAD-US
- Improve coordination with the FGDC Federal Lands Workgroup
- Share applications and assess needs

Note: State stewards focus on fee lands; conservation easement data is collected by the National Conservation Easement Database and incorporated into PAD-US.

How PAD-US is Built



Revised: 2/21/2018

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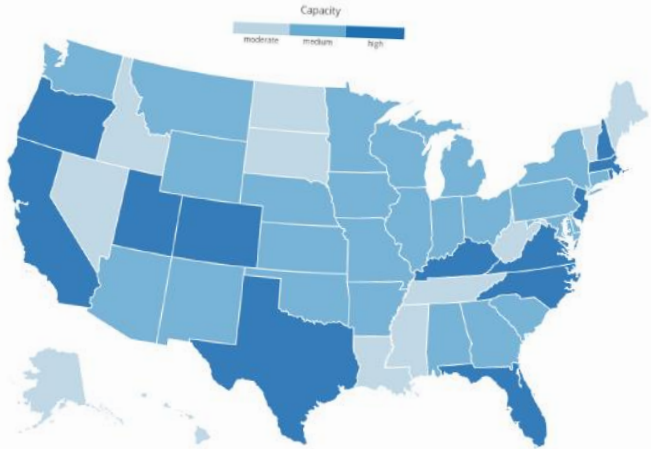
FGDC State Lands Working Group (part of National Boundaries Group)
https://communities.geoplatform.gov/ngda-govunits/national-boundaries-group/

Mackenzie Case, MackenzieCase@boisestate.edu
Chair, FGDC State Lands Working Group

PAD-US State Data Stewards

State data steward agencies and organizations that contribute to PAD-US have varying capacities for management of comprehensive state protected areas data, as the map below indicates. Learn more about data stewards, their contacts, and the completeness of state protected areas data inventories at: https://gapanalysis.usgs.gov/padus/partners/ and http://www.protectedlands.net/data-stewards/ (access to interactive map below).



The **State Lands Working Group** (made up of PAD-US state data stewards and advisors) is an element of the National Boundaries Group (NBG), a part of the FGDC National Geospatial Data Asset Theme Community, whose purpose is to develop nationally consistent and accurate boundaries that are integrated using the same geographic base. The NBG coordinates boundary information sharing among federal, state, local, tribal, and private organizations.

fgdc

PAD-US Contacts

Lisa Johnson, PAD-US Coordinator, USGS Cooperator, Lisa.Johnson@boisestate.edu
Mackenzie Case, GIS & Policy Analyst, USGS Cooperator, MackenzieCase@boisestate.edu

http://gapanalysis.usgs.gov/padus
www.protectedlands.net

Visit the FGDC Booth!

(T714)

Attend the NBG meeting!

Wednesday, March 21st

1:00 – 3:00 ET

Convention Center

Room 141

Vision and Goals

What do we all **want?**

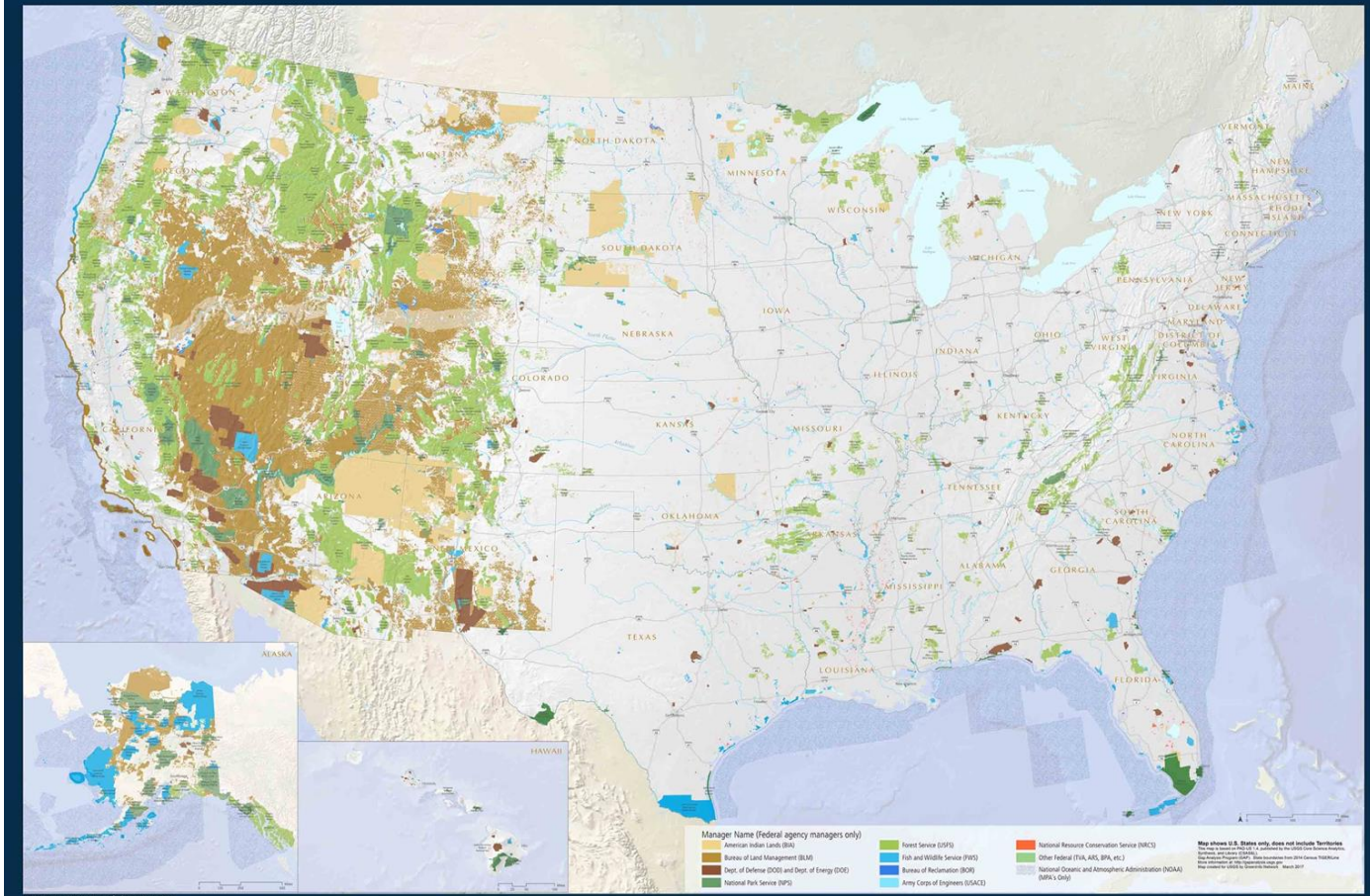
- Find out about any park or protected area
- Anywhere in the U.S.
- All in one data set

That's the **vision** for PAD-US

Lands for recreation, habitat, timber and more

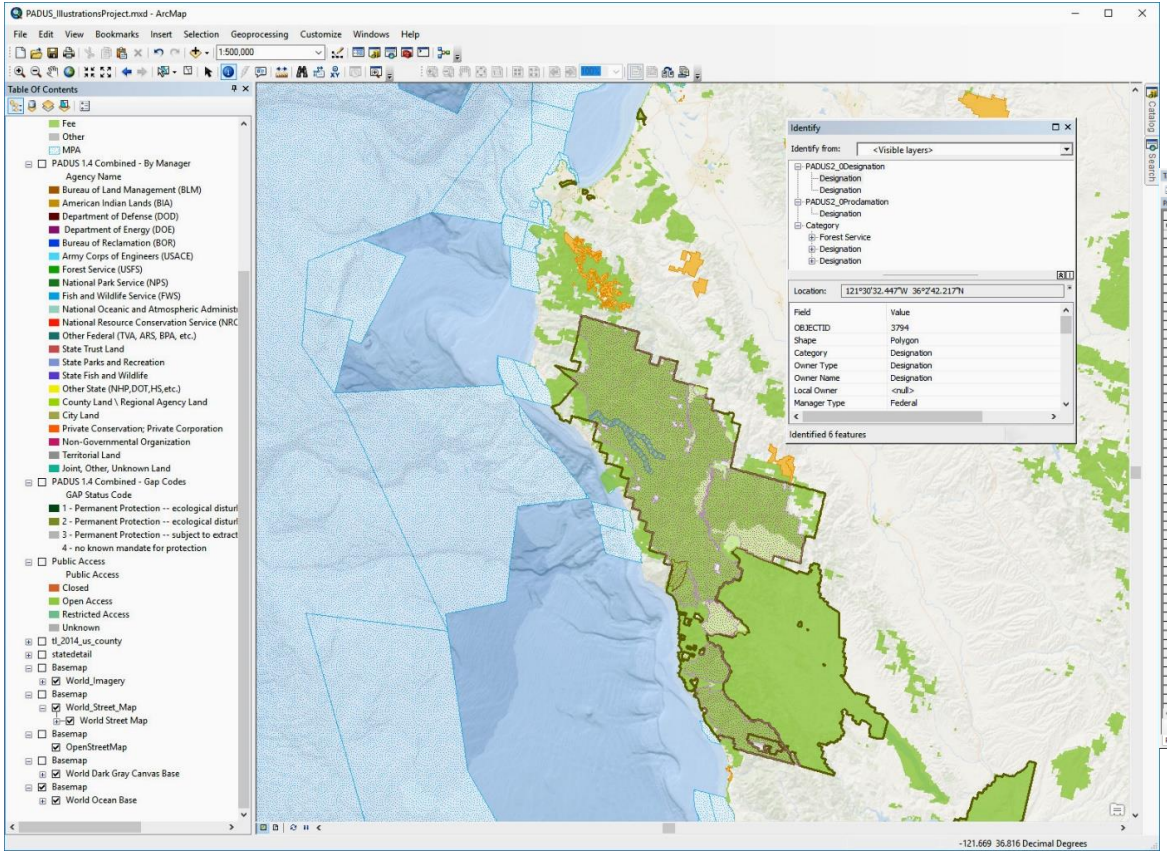
USGS
science for a changing world

Protected Areas Database of the U.S. (PAD-US) - Federally Managed Lands



U.S. Department of the Interior
U.S. Geological Survey

GIS data


PADUS_IllustrationsProject.mxd - ArcMap
File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help
Table Of Contents
Fee
Other
MPA
PADUS 1.4 Combined - By Manager
Agency Name
Bureau of Land Management (BLM)
American Indian Lands (BIA)
Department of Defense (DOD)
Department of Energy (DOE)
Bureau of Reclamation (BOR)
Army Corps of Engineers (USACE)
Forest Service (USFS)
National Park Service (NPS)
Fish and Wildlife Service (FWS)
National Oceanic and Atmospheric Administ
National Resource Conservation Service (NRC
Other Federal (TVA, ARS, BPA, etc.)
State Trust Land
State Parks and Recreation
State Fish and Wildlife
Other State (NHP,DOT,HS,etc.)
County Land \ Regional Agency Land
City Land
Private Conservation; Private Corporation
Non-Governmental Organization
Territorial Land
Joint, Other, Unknown Land
PADUS 1.4 Combined - Gap Codes
GAP Status Code
1 - Permanent Protection -- ecological disturl
2 - Permanent Protection -- ecological disturl
3 - Permanent Protection -- subject to extract
4 - no known mandate for protection
Public Access
Public Access
Closed
Open Access
Restricted Access
Unknown
tl_2014_us_county
statedetail
Basemap
World_Imagery
Basemap
World_Street_Map
World Street Map
Basemap
OpenStreetMap
Basemap
World Dark Gray Canvas Base
Basemap
World Ocean Base
Identify
Identify from:
<Visible layers>
PADUS2_0Designation
Designation
Designation
PADUS2_0Proclamation
Designation
Category
Forest Service
Designation
Designation
Location:
121°30'32.447"W 36°2'42.217"N
Field
Value
OBJECTID
3794
Shape
Polygon
Category
Designation
Owner Type
Designation
Owner Name
Designation
Local Owner
<null>
Manager Type
Federal
Identified 6 features
-121.669 36.816 Decimal Degrees

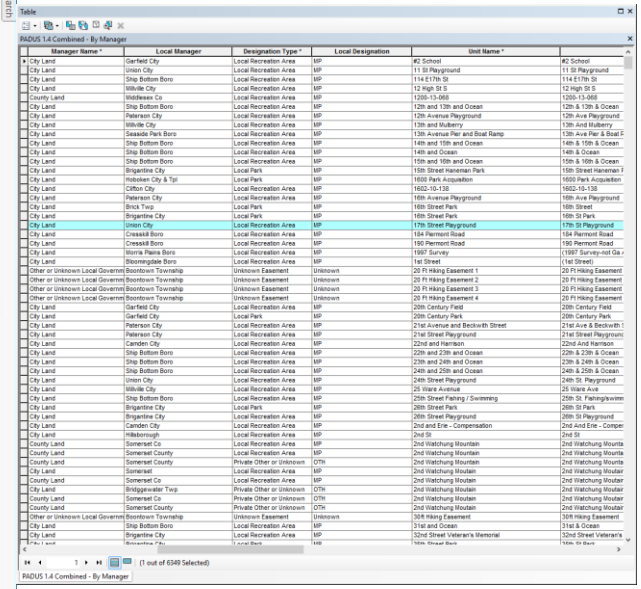
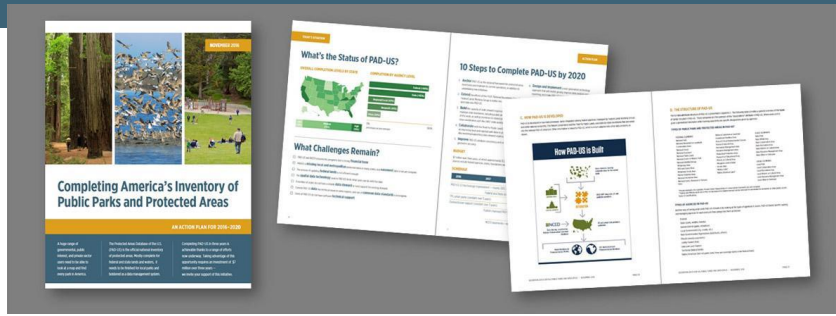


Table
PADUS 1.4 Combined - By Manager
Manager Name
Local Manager
Designation Type
Local Designation
Unit Name
PADUS 1.4 Combined - By Manager

Supports many users

Federal Lands Vision



Complete **Accurate** **Standardized** **Annual**

aggregation of federally owned lands and waters

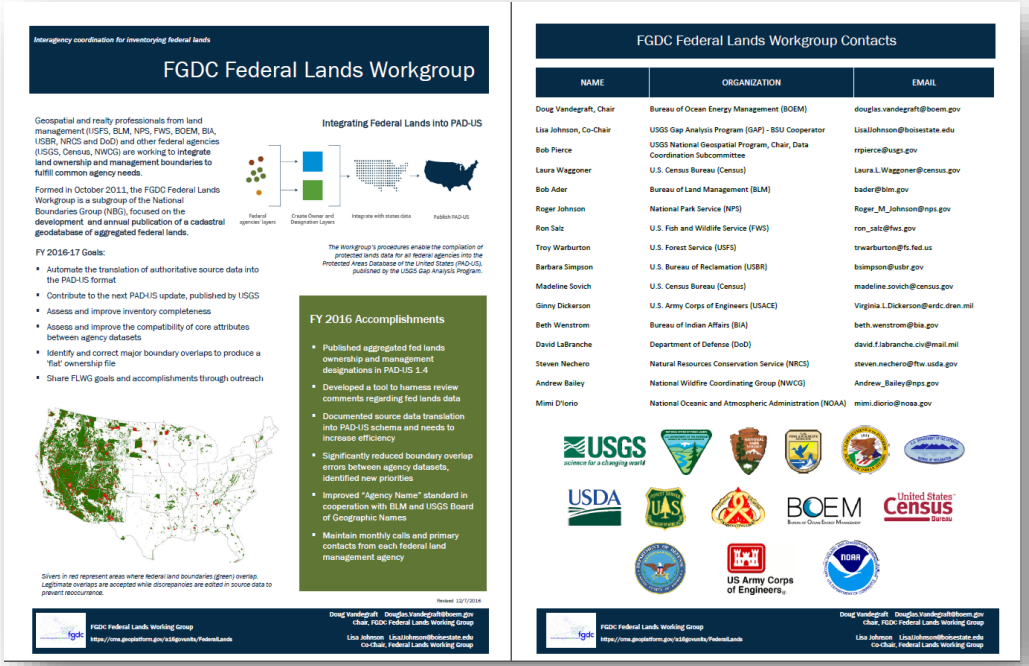
with management designations to fulfill **common** agency **needs**.

Aiming for: full parcel-based inventory + automated updates

Accomplishments and Goals

FLWG Fact Sheet

- 14 land managing and related **agencies**
- **Collaboration** to support aggregation of federal land ownership and management designations into PAD-US
- **Sharing** best practices, improving internal systems, raising awareness



Interagency coordination for inventorying federal lands

FGDC Federal Lands Workgroup

Geospatial and realty professionals from land management (USFS, BLM, NPS, FWS, BOEM, BIA, USBR, NRCS and DoD) and other federal agencies (USGS, Census, NWCG) are working to **integrate land ownership and management boundaries to fulfill common agency needs.**

Formed in October 2011, the FGDC Federal Lands Workgroup is a subgroup of the National Boundaries Group (NBG), focused on the **development and annual publication of a cadastral geodatabase of aggregated federal lands.**

Integrating Federal Lands into PAD-US

Federal agencies' layers
Create Owner and Designation Layers
Integrate with states data
Publish PAD-US

The Workgroup's procedures enable the compilation of protected lands data for all federal agencies into the Protected Areas Database of the United States (PAD-US), published by the USGS Gap Analysis Program.

FY 2016-17 Goals:

- Automate the translation of authoritative source data into the PAD-US format
- Contribute to the next PAD-US update, published by USGS
- Assess and improve inventory completeness
- Assess and improve the compatibility of core attributes between agency datasets
- Identify and correct major boundary overlaps to produce a 'flat' ownership file
- Share FLWG goals and accomplishments through outreach

FY 2016 Accomplishments

- Published aggregated fed lands ownership and management designations in PAD-US 1.4
- Developed a tool to harness review comments regarding fed lands data
- Documented source data translation into PAD-US schema and needs to increase efficiency
- Significantly reduced boundary overlap errors between agency datasets, identified new priorities
- Improved "Agency Name" standard in cooperation with BLM and USGS Board of Geographic Names
- Maintain monthly calls and primary contacts from each federal land management agency

Slivers in red represent areas where federal land boundaries (green) overlap. Legitimate overlaps are accepted while discrepancies are edited in source data to prevent reoccurrence.

Revised 12/1/2016

FGDC Federal Lands Working Group
https://cna.geoplatform.gov/s1dgnvsnts/FederalLands

Doug Vandegraft Douglas.Vandegraft@boem.gov
Chair, FGDC Federal Lands Working Group
Lisa Johnson LisaJJohnson@boisestate.edu
Co-Chair, Federal Lands Working Group

FGDC Federal Lands Workgroup Contacts

NAME	ORGANIZATION	EMAIL
Doug Vandegraft, Chair	Bureau of Ocean Energy Management (BOEM)	douglas.vandegraft@boem.gov
Lisa Johnson, Co-Chair	USGS Gap Analysis Program (GAP) - BSU Cooperator	LisaJJohnson@boisestate.edu
Bob Pierce	USGS National Geospatial Program, Chair, Data Coordination Subcommittee	rrpierce@usgs.gov
Laura Waggoner	U.S. Census Bureau (Census)	Laura.L.Waggoner@census.gov
Bob Ader	Bureau of Land Management (BLM)	bader@blm.gov
Roger Johnson	National Park Service (NPS)	Roger_M_Johnson@nps.gov
Ron Salz	U.S. Fish and Wildlife Service (FWS)	ron_salz@fws.gov
Troy Warburton	U.S. Forest Service (USFS)	trwarburton@fs.fed.us
Barbara Simpson	U.S. Bureau of Reclamation (USBR)	bsimpson@usbr.gov
Madeline Sovich	U.S. Census Bureau (Census)	madeline.sovich@census.gov
Ginny Dickerson	U.S. Army Corps of Engineers (USACE)	Virginia.L.Dickerson@erdc.dren.mil
Beth Wenstrom	Bureau of Indian Affairs (BIA)	beth.wenstrom@bia.gov
David LaBranche	Department of Defense (DoD)	david.f.labranche.civ@mail.mil
Steven Nechero	Natural Resources Conservation Service (NRCS)	steven.nechero@ftw.usda.gov
Andrew Bailey	National Wildfire Coordinating Group (NWCG)	Andrew_Bailey@nps.gov
Mimi D'Iorio	National Oceanic and Atmospheric Administration (NOAA)	mimi.diorio@noaa.gov

FGDC Federal Lands Working Group
https://cna.geoplatform.gov/s1dgnvsnts/FederalLands

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Chair, FGDC Federal Lands Working Group
Lisa Johnson LisaJJohnson@boisestate.edu
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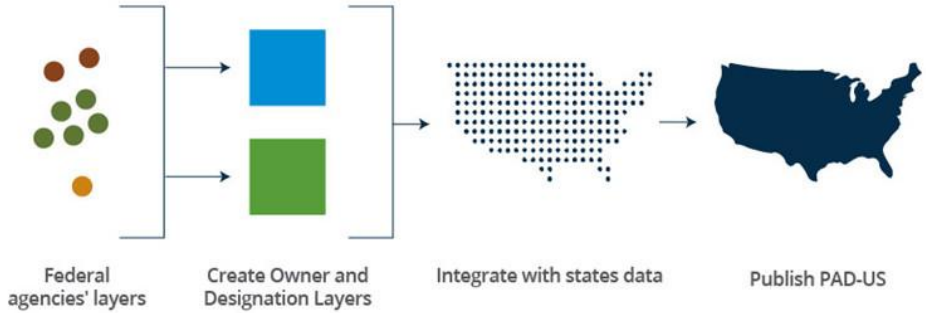
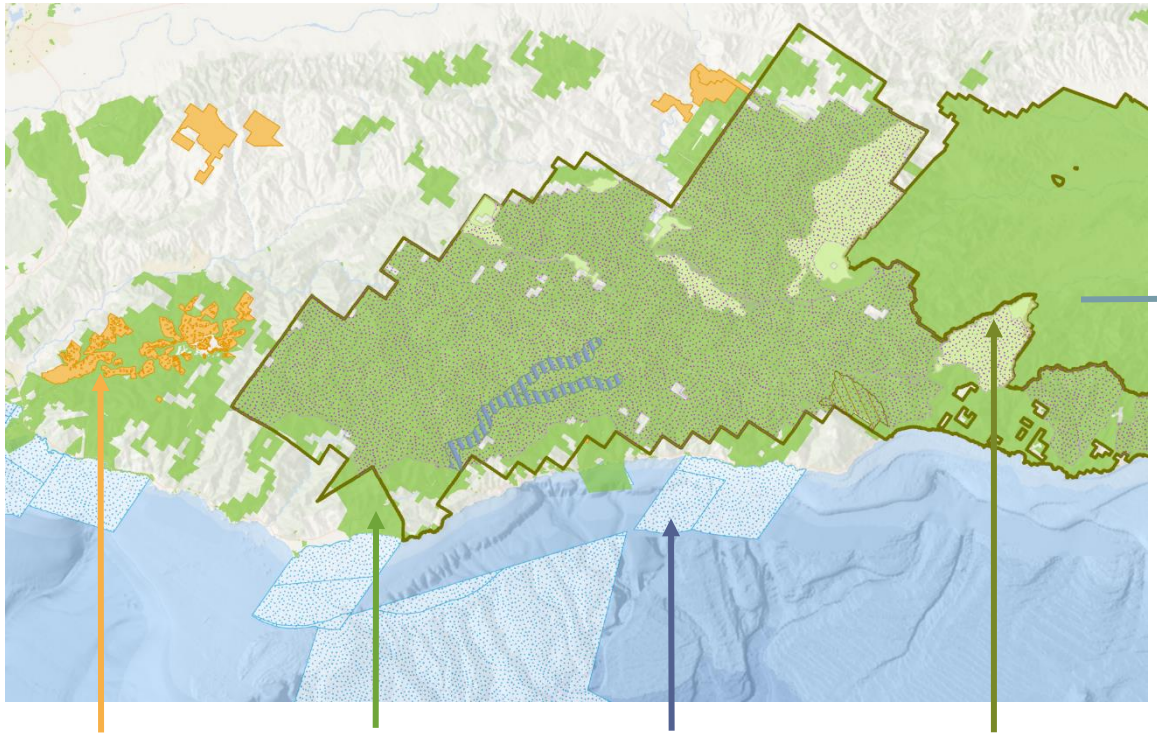
Automated updates



A better geodatabase



Easements
(overlays private or public)

Fee Ownerships

Marine Protected Areas

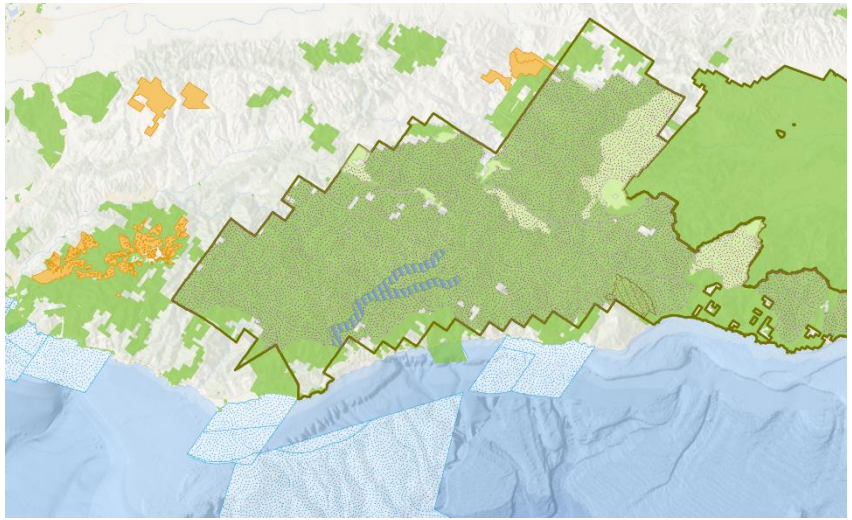
Proclamation Boundaries
(administrative)

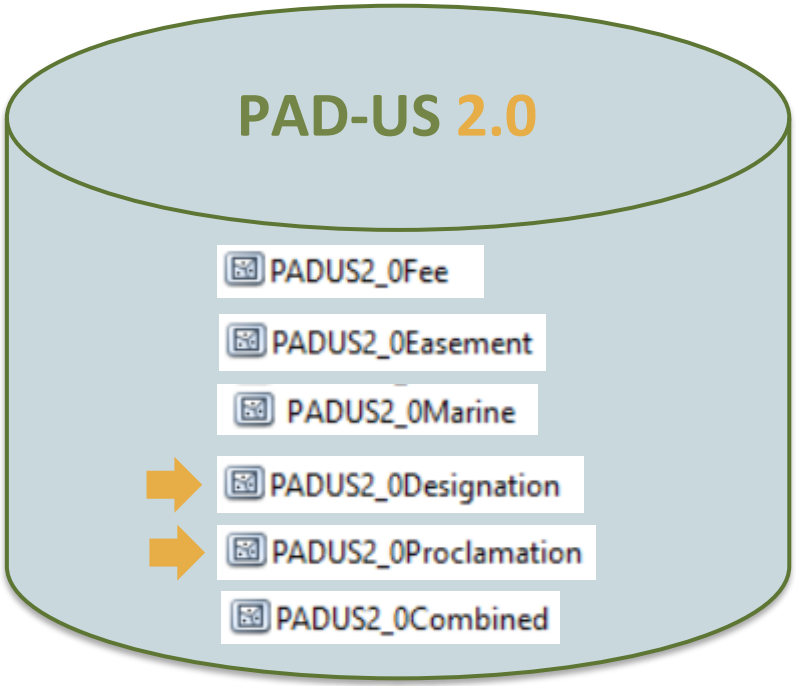
Policy Designation Boundaries

- Wilderness Area
- Inventoried Roadless Area
- Research Natural Area
- Wild & Scenic River

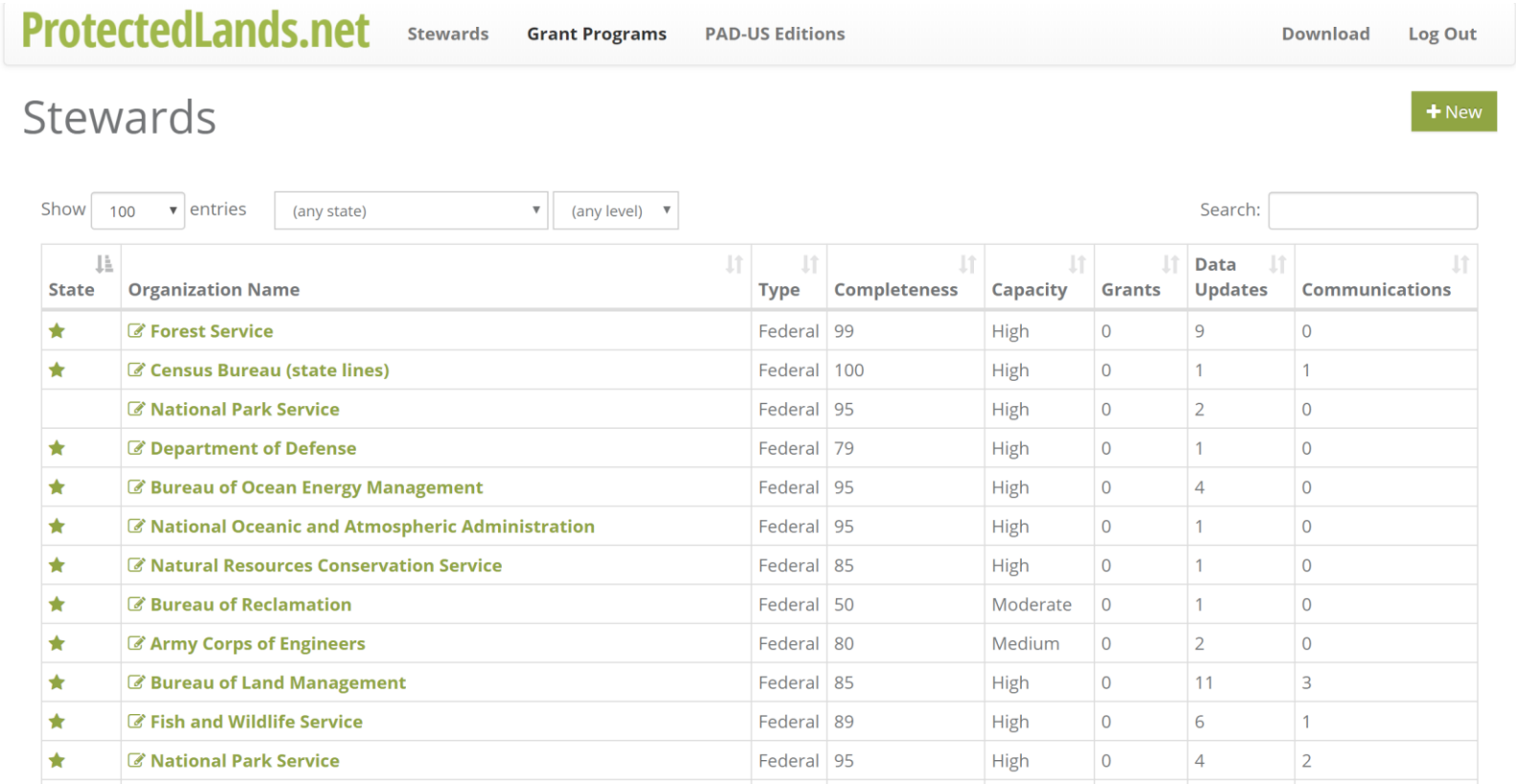
+ many others

A better geodatabase





Tracking Source Data



ProtectedLands.net Stewards Grant Programs PAD-US Editions Download Log Out

Stewards

+ New

Show 100 entries (any state) (any level) Search:

State	Organization Name	Type	Completeness	Capacity	Grants	Data Updates	Communications
★	Forest Service	Federal	99	High	0	9	0
★	Census Bureau (state lines)	Federal	100	High	0	1	1
	National Park Service	Federal	95	High	0	2	0
★	Department of Defense	Federal	79	High	0	1	0
★	Bureau of Ocean Energy Management	Federal	95	High	0	4	0
★	National Oceanic and Atmospheric Administration	Federal	95	High	0	1	0
★	Natural Resources Conservation Service	Federal	85	High	0	1	0
★	Bureau of Reclamation	Federal	50	Moderate	0	1	0
★	Army Corps of Engineers	Federal	80	Medium	0	2	0
★	Bureau of Land Management	Federal	85	High	0	11	3
★	Fish and Wildlife Service	Federal	89	High	0	6	1
★	National Park Service	Federal	95	High	0	4	2

Agency Reporting

ESTIMATED FEDERAL LAND

Individual federal agency estimate
including fee parcels, easement in

National Park Service
Forest Service
Fish and Wildlife Service
Bureau of Land Management
Army Corps of Engineers
Department of Defense
Bureau of Reclamation

Protected Areas Database of the United States (PAD-US) — Data Steward Report

FEDERAL

Forest Service

Steward program description: Established in 1905, the Forest Service is an agency of the U.S. Department of Agriculture and manages national forests and grasslands which encompass 193 million acres of land in almost 300 separate units. The Service's Automated Lands Program (ALP) provides data on these lands to PAD-US.

Steward Information
Program Name: Washington Office-Lands and Realty Management-Automated Lands Program
Organization Status: Active
Program Status: Active
Website: https://www.fs.fed.us/
Data Download URL:
https://data.fs.usda.gov/geodata/edw/datasets.php?xmlKeyword=PADUS
Other Page or Portal: https://www.fs.fed.us/land/staff/index.shtml

Primary Contact
Troy Warburton, ALP Program Manager
Organization: Forest Service
trwarburton@fs.fed.us / 801-975-3433

Secondary Contact
Holly Martin, Data Analyst
Organization: Forest Service
hlmartin@fs.fed.us / 503-729-6676

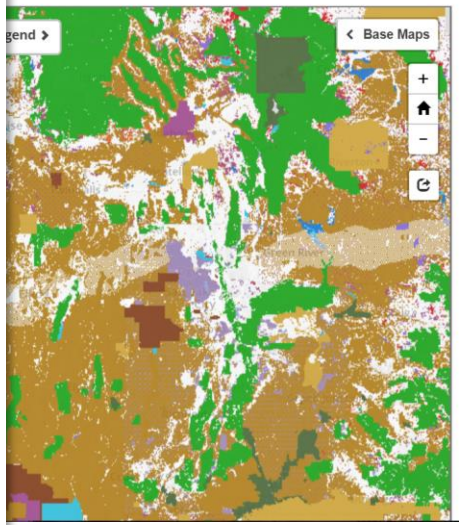
This report is in support of PAD-US, the Protected Areas Database of the US, published by USGS. Information on PAD-US data stewards can be found at the www.ProtectedLands.net PAD-US companion website. More information about PAD-US is available on the USGS PADUS website:
http://gapanalysis.usgs.gov/padus

Current Completeness of Agency Data: 99 %

Notes: Fee parcel ownership, easement interest and designations (congressional and executive) for all USFS lands available in PAD-US format from national data steward. Active participation in FGDC Federal Lands Working Group. Improved administrative designations (complete RNAs, national grazing/mining allotments, etc.) are needed to better represent biodiversity protection and/or recreation opportunities on multiple use lands.

Updates Contributed to PAD-US

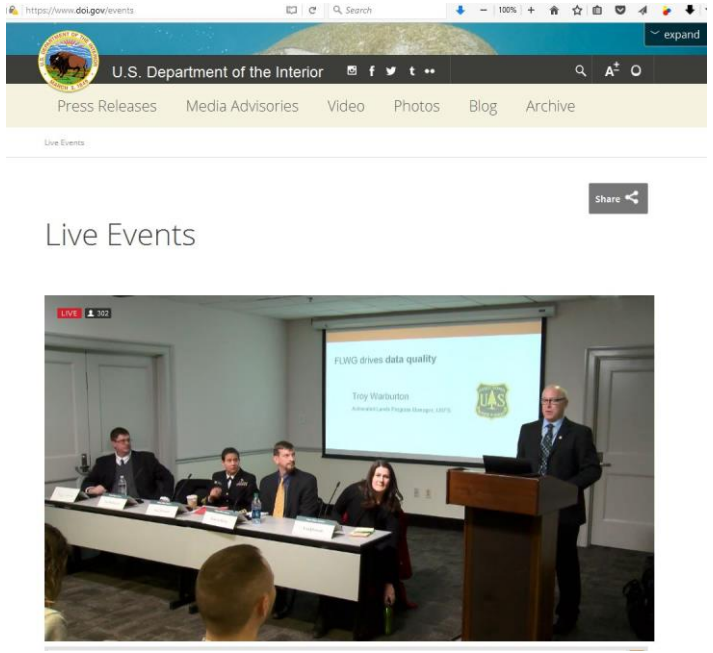
PAD-US 2.0	Other Designated	September 2017
PAD-US 2.0	Easements	September 2017
PAD-US 2.0	Spec. Interest Area	September 2017
PAD-US 2.0	Wilderness	September 2017
PAD-US 2.0	Wild/Scenic Rivers	September 2017
PAD-US 2.0	Roadless Areas	September 2017
PAD-US 2.0	Withdrawal Areas	September 2017
PAD-US 2.0	NFS Land Units	September 2017
PAD-US 2.0	Surface Ownership	September 2017



http://www.protectedlands.net/data-stewards/

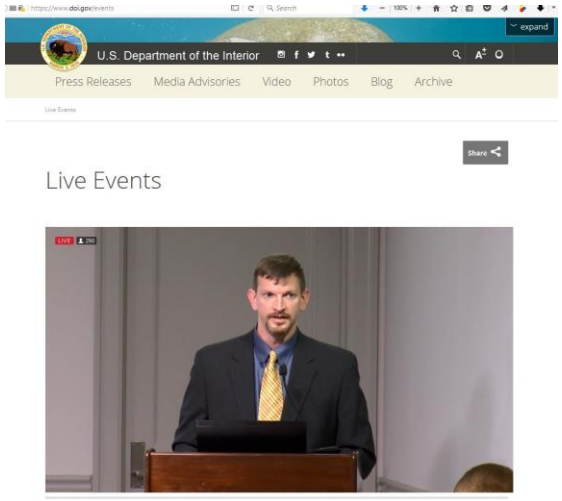
DOI **Office of Policy Analysis** – July 9th

- Lisa Johnson – PAD-US Coordinator, U.S. Geological Survey Cooperator
- Troy Warburton – Automated Lands Program Manager, U.S. Forest Service
- Ron Salz – Chief Cartographer, U.S. Fish & Wildlife Service
- Doug Vandegraft – Chief, Geospatial Services Division, Bureau of Ocean Energy Management
- Bob Ratcliffe – Chief, Conservation and Outdoor Rec, National Park Service



Congressional Research Service update – July 10th

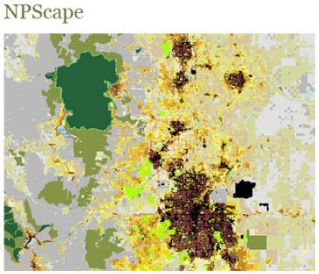
- What's new in 2?
- Update on known **data gaps**
- Representation in U.S. **Territories?**
- How to manage **overlaps**
- **Military** land updates? Previous version only included major installations
- Possible to include **attributes** (#bldg, #facilities, etc.) from Military Infrastructure Capacity Report?

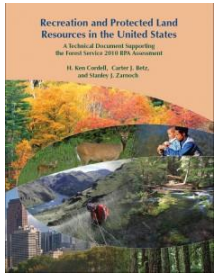


Common Agency **Needs**

Many uses…

- Conservation
- Recreation
- Land use planning
- Fire and hazards
- Federal ownership
- Public lands
- Natural resource management
- Global reporting



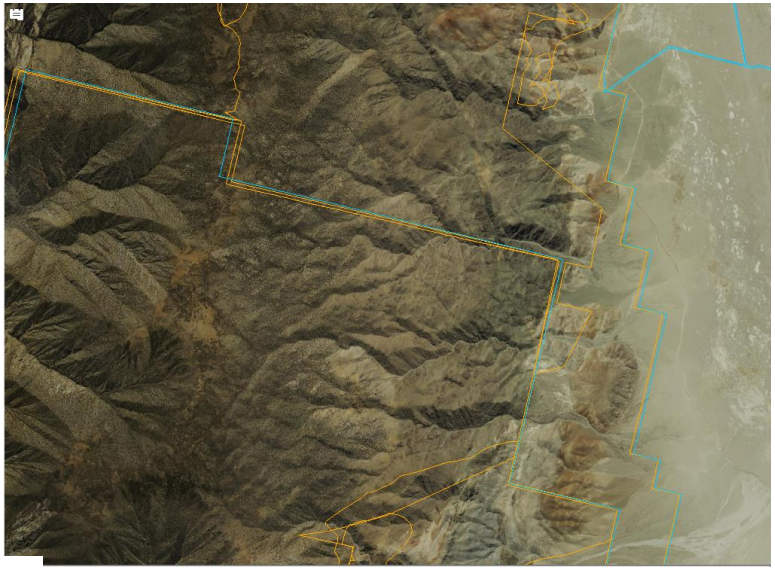


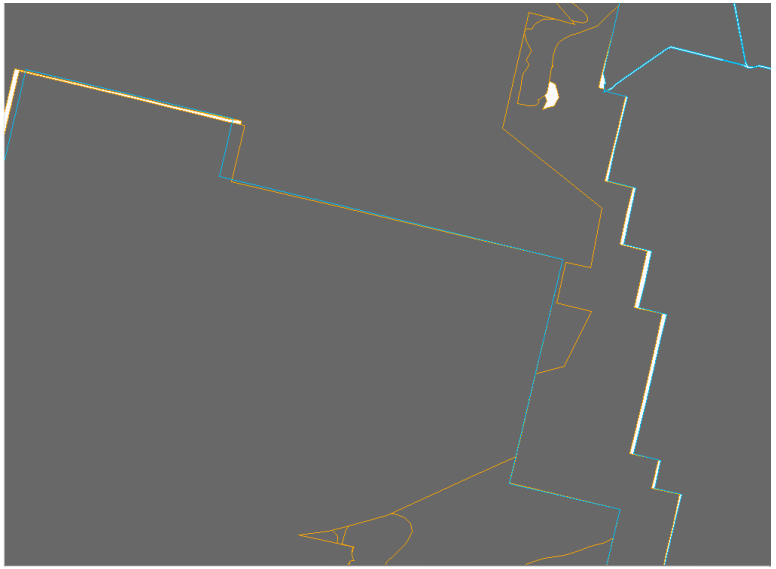
Congressional Research Service – Current Uses

- Updated **Federal ownership** maps
- **Public ownership** by congressional district
- **Agency** specific lands in state or congressional district
- **Designation** boundaries (Parks, Monuments, etc.)
- Identifying **military** installations for gov reports
- Locating federal areas in U.S. **Territories**

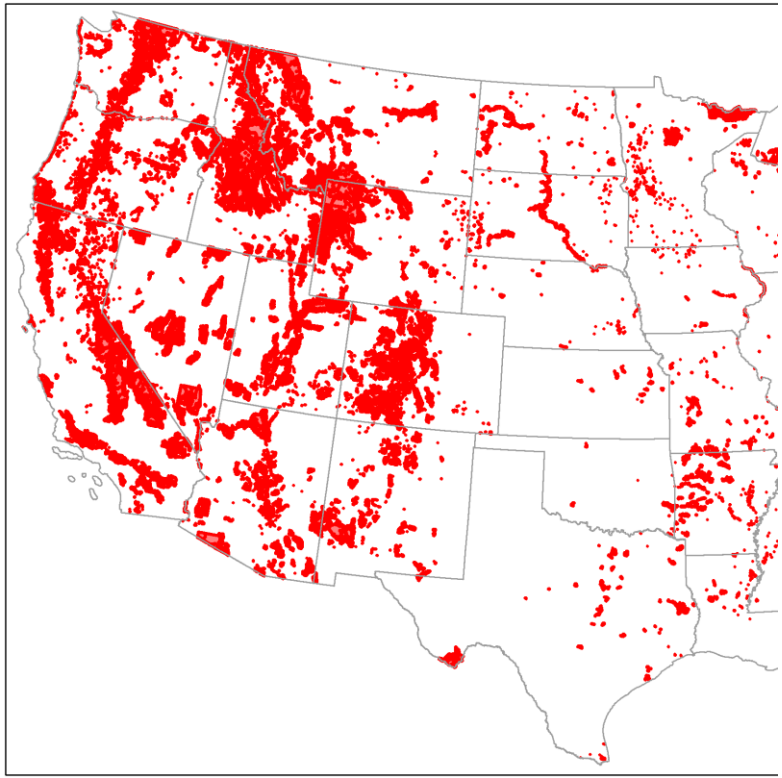
Improve data quality

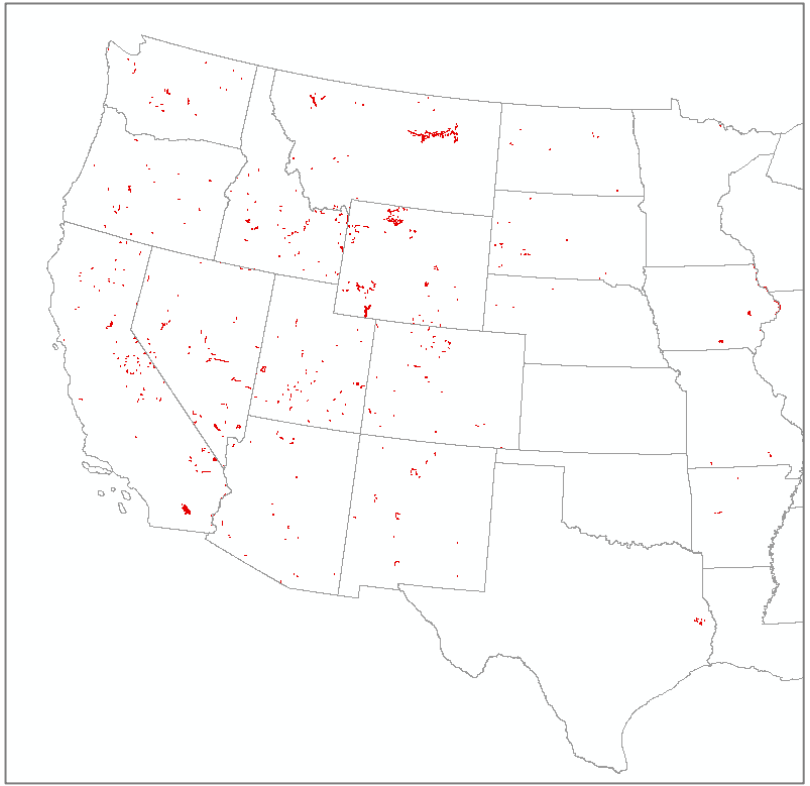
Identify, manage and correct **boundary** overlaps





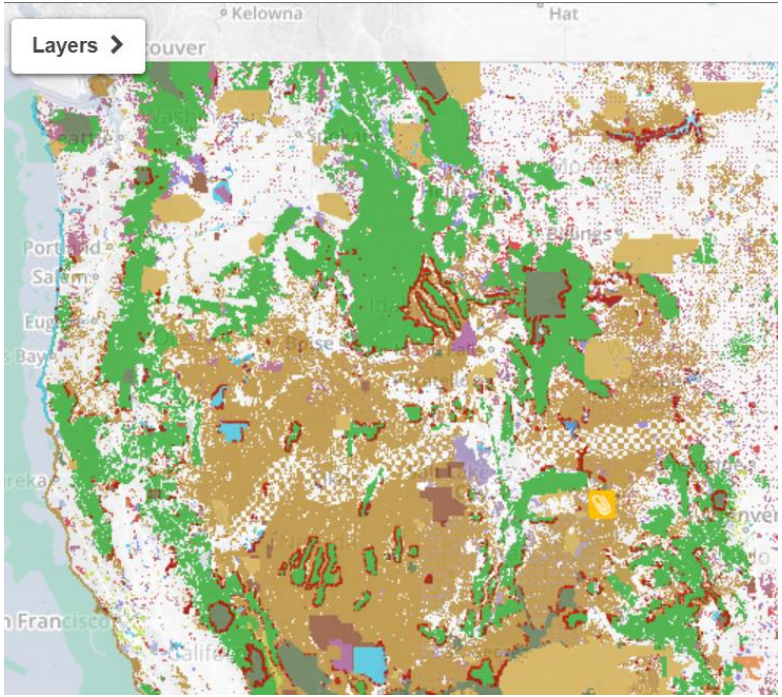
Improve data quality





Improve data quality

- Review tool – suggest edits to reduce **topology** overlaps
- Revise linework or attributes
- Review federal and **state** (other) overlaps
- Census state boundary **standard** – address slivers

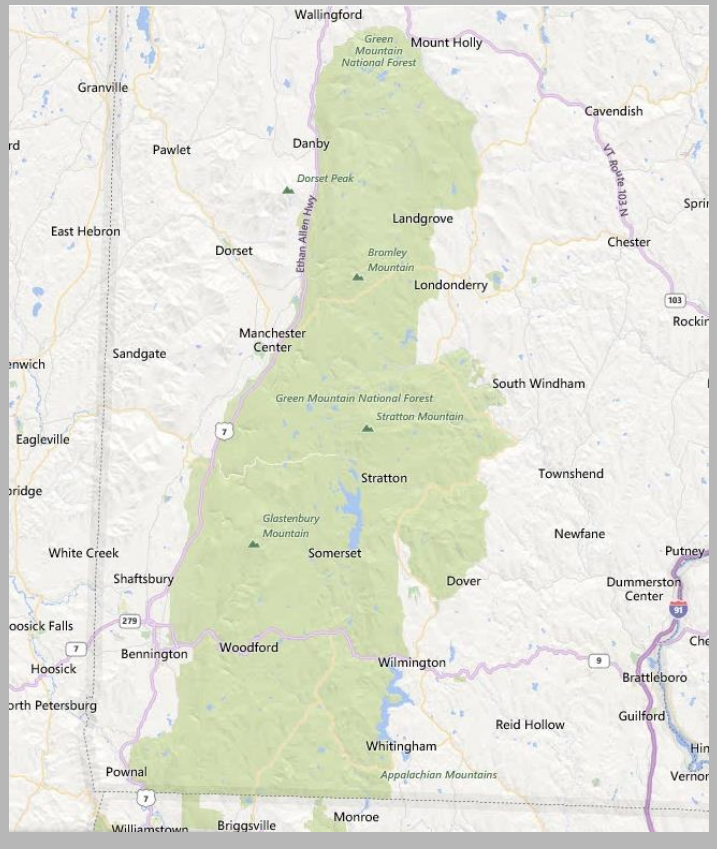


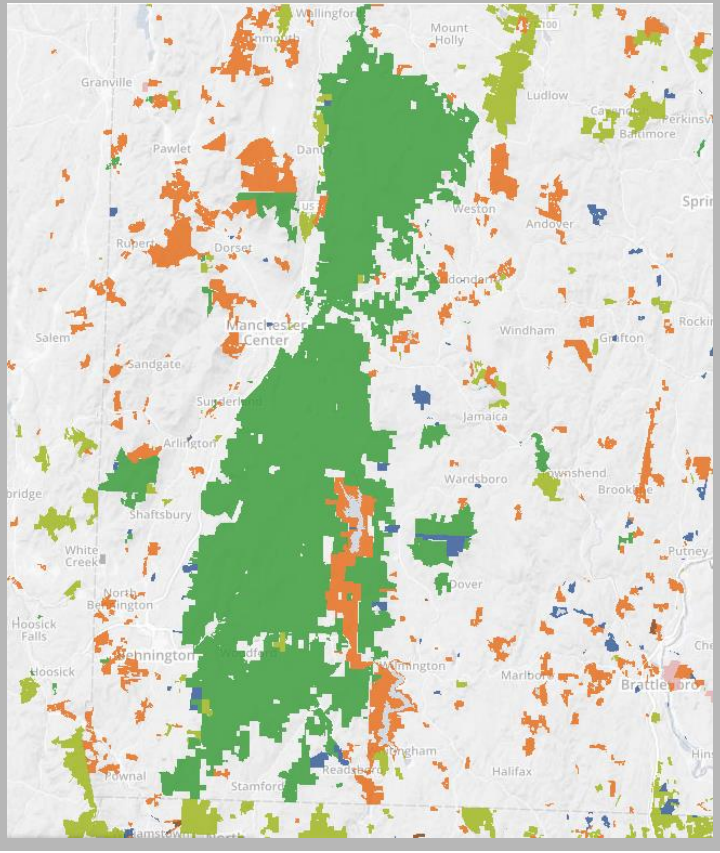
Improve attributes

- **Category** - esp **Fee** parcel
- **Owner / Manager** Name
- **Unit Name** - Proper Case, no acronyms, designation type included
- **Designation Type** vs *Local* Type
- Public **Access** (open, restricted, closed)
- **GAP Status** Code (biodiversity, multiple use, no known protection)

Making a base **map**

Base maps and authoritative data





FLWG **Feedback**

What makes the FLWG **successful**?

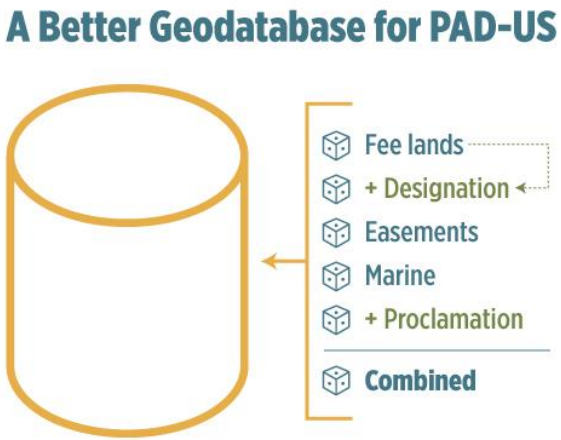
- Quality product (PAD-US) **meets common agency needs**
- Compelling derivative **products** for stakeholders
- Shared goals, vision and **ownership**
- Plain, focused and **action-oriented**
- **Flexible** contributions by participants
- **Right people**, right organizational levels
- Regular **communication**
- Trust, **commitment**, follow-through

Keeping up the **momentum**

- Ensure **representation** during meetings
- Build support for **workplan** – how can we help you?
- Pass the baton – **connect** colleagues, esp during transitions
- **Post** short FLWG overview
- **Post** full PAD-US overview

Focus on **Priorities**

- Automate updates
- Complete inventory
- Add persistent ID
- Expand outreach
- Improve Fee topology



Let’s eat!

El Sol @ 6pm